Pocahontas County Geological Survey
Report

On page 272 - illustration

Cross section of Browns Mountain Anticline along the highway (State Route 43) follwoing the Knapp Creek gorge between the Hunterville bridge, 0.8 miles southeast of Huntsville, and the Minnehaha Springs bridge, o.5 miles northwest of Minnehaha Springs.

(Sketch attached)

The major anticlines are described as follows:

Deer Park Anticline

Blackwater Anticline

Browns Mountain Anticline

Horton Anticline

Deer Park Anticline enters Pocahontas from Randolph 0.4 miles west of Mace - continues in a general S. W. direction for 11-1/4 miles.

Passing just west of Linwood - terminating on the eastern end of Red Lick Mountain.

The Blackwater Anticline has its orgin in Mineral County- southwest to Maryland - roughly paralleling the west Virginia and Maryland Line to 1 mile southeast of Gormama - continues southward to Grant - Tucker County line across Tucker through Canaan Valley into Randolph entirely across Randolph to Pocahontas entering 2 miles Northeast of Wildell - continues southwest for 13½miles passing through Frank, and apparently dying out in Sandy Ridge.

Under the head of Browns Mountain Anticlinewill be discussed the complex folded area or Antiolinorium, that is so consp-

icous along Knap Creek between Hunterville and Minnahaha Springs and that extends south westward along Brushy and Beaver Lick Mountains into Greenbrier County and to the norht along Browns and Mitchael Mountains, through Green Bank and ending approximately one mile northeast of Bartow.

The Mountains which is the most conspicuos strcutural feature in Pocahontas County, has its source in a number of small folds betqeen the southern ends of Blackwater Anticline and Job syncline near Bartow.

It continues southwestward roughly parralleling the State road to Green Bank where much evidence of sqneezing can be seen, and from this locality the main axis connects woth the top of Mitchael Mountain.

Along the state road East of Dunmore a series of folds is encountered with sqneezing and mashing.

The Oriskany series 1/4 mile east of Dunmore is overturned woth a 55º dip to the south esat, while 3/4 of a mile farther east the Bossarville platy limstone has been sqneezed almost to a point of flowage, one-half mile farther east form the latter point a low graceful, single arch of the White Medina constitutes the main axis of this folded area and marks the northern end of this series that is so prominently developed between Hunterville and Minnehaha Spring.

At the southern end of Michael Mountain the axis trends somewhat abruptly to the southwest and crosses the Brown Creek - Frost road 1.3 miles east Thorny Creek School. From this point southward the major fold holds to

the western side of Browns Mountain, but in the gorge of Knapp creek its true nature as an anticlinorium becomes more apparent, there being another fold of equal magnitude just west of the minnehaha Springs bridge.

The rocks exposed in this fold include those of the Chemung Series of the Upper Devonian down to the Red Medina Series of the basal Silurian.

Both the eastern and western flanks are composed of steep dips and accasionally over-turned somewhat beyond the vertical.

At Michael Mountain this Anticline its greatest altitude bringing the White Medina quartzite to the surface along the crest of the ridge.

The same series is exposed in the arch 1.7 miles east of Dunmore and is also well exposed, with the underlying Red Medina, in the gorge of Knapp Creek between Huntersville and Minnehaha Springs. It is also the Princepal ridge rock in Beaver Lick Mountain.

Much of the area of this Anticline is composed of the Silurian limestones, but there are a number of the ridges composed of the Clinton quartzites.

The remaining ridge maker is the Oriskany Series that flanks this entire Anticline on either side of the ridge which slo pes down to the Lower Devonian shale depressions that surround the mountains.

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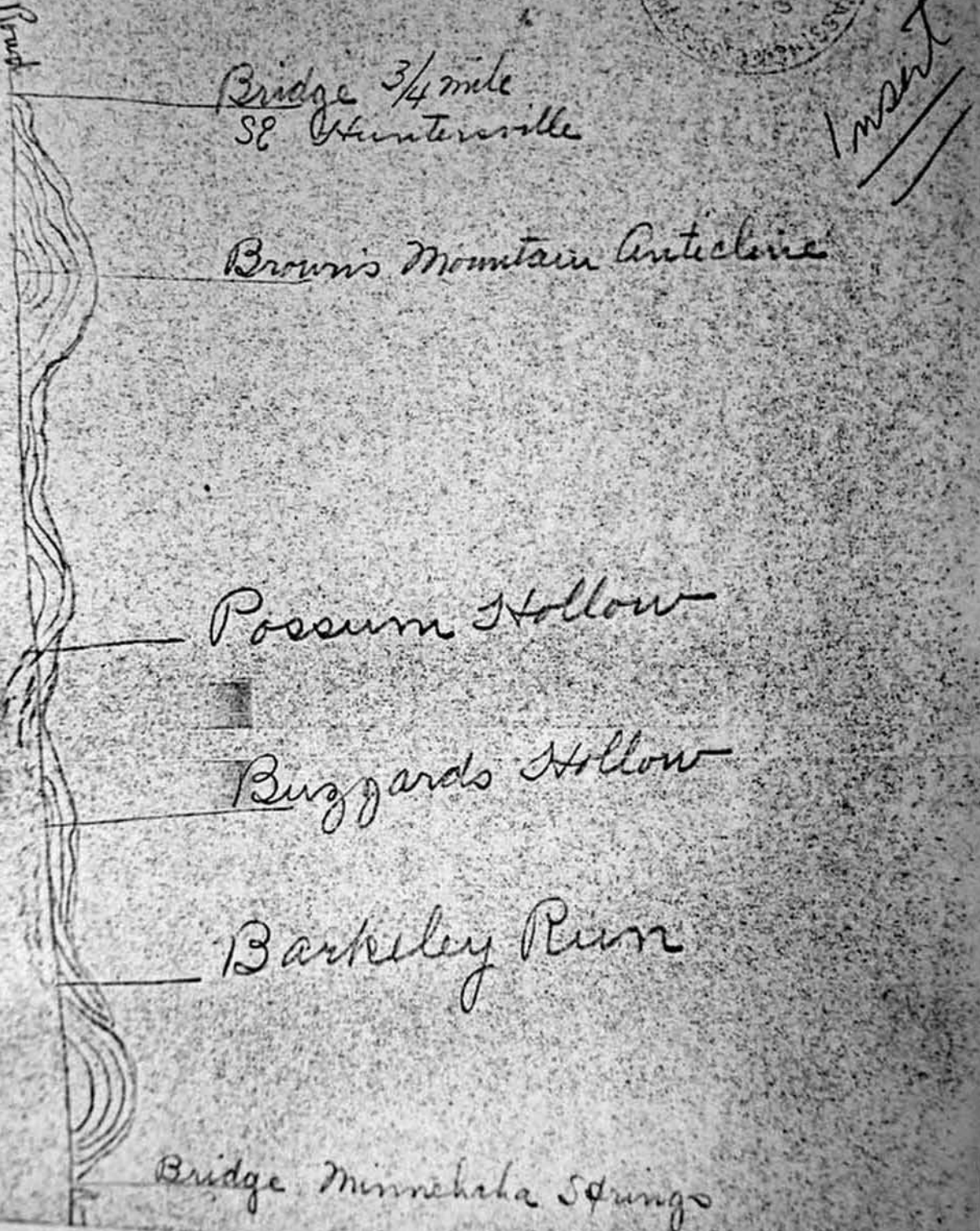
Cave near base of Greenbrier River limestone at the head of Stevend Hole Run. The cave was the home of Steven Sewell for several years and is now a point of interest for tourists.

Old Brown's Mt. Anticline
1 m. SE of Huntersville
Ton 18



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Beautiful arch in Bedrock 1 mi southeast of Huntersville. Beneath this arch are a few of the remaining American yew pines in the county